



Dart Hawkesbury  
1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada  
Tel (613) 632-5200

## Purchasing Receipts

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Aging Days	Past Due	Total	Supplier Name
PO040159	ACI001-VC	1	1	Net 30	MT-A500-TR-1.500X1.000W0.125	Steel Rectangular Tubing 1.500""H X 1.000""W X 0.125""T : MATERIAL: ASTM A500 STEEL SQUARE TUBING SPECIFICATION: ASTM A500 OR ASTM A513				24	6/25/2018	24		S082796	Stock	6/20/2018	\$ 1.73 / ft	0		\$41.42	Acier Ouellette Inc.
		2			MT-4140-S-3.000X8.000	AISI 4140 / 4142 Steel Plate 3.000""T X 8.000""W SPECIFICATION: AISI 4140 / 4142 STEEL SHEET OR PLATE ASTM A829, AMS 6395 MINIMUM ROCKWELL C = 28 Rc MAXIMUM ROCKWELL C = 32 Rc						24		S082797	Stock	6/20/2018	\$ 204.20 / ft	0		\$4,900.80	Acier Ouellette Inc.
		3			MT-4140-R2.000	AISI 4140 Round Bar : MAT""L, AISI 4140 ROUND BAR MINIMUM ROCKWELL C = 20 Rc MAXIMUM ROCKWELL C = 38 Rc SPECIFICATION: ASTM A29, AMS 6349, AMS 6382, AMS 6529				12		12		S082798	Stock	6/20/2018	\$ 22.64 / ft	0		\$271.64	Acier Ouellette Inc.
		4			MT-HRS-B-2.500X3.500	Hot Rolled Steel Bar 2.500W X 3.500H MATERIAL: HOT ROLLED STEEL PLATE ASTM A36 OR ASTM A1011 OR 44W OR ASTM A1018				3		3		S082799	Stock	6/20/2018	\$ 39.80 / ft	0		\$119.40	Acier Ouellette Inc.
		5			M6061T6R7.000	6061-T6 Round Bar 7.000"" (CUT TO SIZE: 7.125"" ) : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft				6		6		S082800	Stock	6/20/2018	\$ 212.45 / ft	0		\$1,261.97	Acier Ouellette Inc.
		6			M304S20GA	304/316 .040 Sheet : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf				128		128		S082801	Stock	6/20/2018	\$ 5.27 / sf	0		\$674.93	Acier Ouellette Inc.

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Aging Days	Past Due	Total	Supplier Name
		7			M5052H32S.063	5052-H32 .063 Sheet : MATERIAL: 5052-H32 ALUMINUM SHEET AS PER QQ-A-250/8 OR AMS-QQ-A-250/8 OR AMS 4016 OR ASTM B209 receive sf				64		64		S082802	Stock	6/20/2018	\$ 5.91 / sf	0		\$378.25	Acier Ouellette Inc.
		8			M304R0.375	304 Round Bar 0.375 : MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive ft				12		12		S082803	Stock	6/20/2018	\$ 1.19 / ft	0		\$14.30	Acier Ouellette Inc.
		9			M303R0.500	303 Round Bar 0.500" : MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE:304/316 NOT ACCEPTABLE receive ft				72		72		S082804	Stock	6/20/2018	\$ 2.34 / ft	0		\$168.54	Acier Ouellette Inc.
		10			M303R0.750	303 Round Bar 0.750 : MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE:304/316 NOT ACCEPTABLE receive ft						72		S082805	Stock	6/20/2018	\$ 5.14 / ft	0		\$369.80	Acier Ouellette Inc.
<b>Total:</b>										<b>417</b>		<b>417</b>								<b>\$6,166.39</b>	



Items										
Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
4	MT-HRS-B-2.500X3.500 <i>AT</i>		Hot Rolled Steel Bar 2.500W X 3.500H MATERIAL: HOT ROLLED STEEL PLATE ASTM A36 OR ASTM A1011 OR 44W OR ASTM A1018	Firmed	6/21/18	3 ft	0 ft <i>3 ft</i>	3 ft	\$39.80/ft	\$119.40
5	M6061T6R7.000 <i>AT</i>		6061-T6 Round Bar 7.000" (CUT TO SIZE: 7.125") : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft	Firmed	6/21/18	5.938 ft <i>5.938 ft</i>	0 ft	6 ft	\$212.45305/ft	\$1,261.55
Line Item Note 10 pcs cut at 7.125" = 5.9375 ft										
6	M304S20GA <i>AT</i>		304/316 .040 Sheet : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf	Firmed	6/14/18	128 sf <i>128 sf</i>	0 sf	128 sf	\$5.2728906/sf	\$674.93
7	M5052H32S.063 <i>AT</i>		5052-H32 .063 Sheet : MATERIAL: 5052-H32 ALUMINUM SHEET AS PER QQ-A-250/8 OR AMS-QQ-A-250/8 OR AMS 4016 OR ASTM B209 receive sf	Firmed	6/15/18	64 sf <i>64 sf</i>	0 sf	64 sf	\$5.9101562/sf	\$378.25
8	M304R0.375		304 Round Bar 0.375 : MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive ft	Firmed	6/14/18	12 ft <i>12 ft</i>	0 ft	12 ft	\$1.191666/ft	\$14.30
9	M303R0.500		303 Round Bar 0.500" : MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE: 304/316 NOT ACCEPTABLE receive ft	Firmed	6/14/18	72 ft <i>72 ft</i>	0 ft	72 ft	\$2.3408333/ft	\$168.54
10	M303R0.750		303 Round Bar 0.750 : MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE: 304/316 NOT ACCEPTABLE receive ft	Firmed	6/21/18	72 ft <i>72 ft</i>	0 ft	72 ft	\$5.136111/ft	\$369.80
Grand Total:										\$8,200.63

## Order Notes

*cc'd AT 8/6/20**C. J. [Signature]*



**Order Notes****Procurement Quality Clauses**

A005 right of entry  
A012 chemical and physical test report  
A016 personnel qualification  
A017 raw material identification (as applicable)  
A026 certification of material conformance  
A041 quality management system  
A042 dart notification by supplier  
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dartaerospace.com](http://www.dartaerospace.com) for further explanation.

*Plex 6/11/18 11:53 AM dart.lavote.chantal*



## DELIVERY - CLIENT

Copy CO00094527

### ACIER OUELLETTE INC.

935, Boul. du Havre  
Salaberry de Valleyfield (Québec) J6S 5L1  
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248  
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

**Customer N°** CLI0001056  
**Date** 2018/06/11  
**Delivery date** **2018/06/20**  
**Your order N°** 40159  
**Processed by** Eric Kaehlert  
**Salesman**  
**Carrier** OUELLETTE VALLEYFIELD  
**Credit Terme** Net 30 Days  
**Page** 1

#### Billed to

DART AEROSPACE LTD  
1270 , ABERDEEN ST.  
HAWKESBURY, Ontario, K6A 1K7

#### Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

**Instruction** F-M

**Delivery Route** 5

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
<b>1</b> TUBE HSS 1 1/2 X 1 X 0.125 * T-1121125 <b>5925</b>  1 X 24'  LINE#1 Heat : 745320 <i>AK</i>	42.72	24.00	PI_\$CLB		24'						
<b>2</b> ROUND 4140 HEAT TREAT 2 (R) R4140-2H <b>4937</b>  1 X 12'  LINE#3 Heat : 75069217 <i>AK</i>	128.16	12.00	PI_\$CLB		12'						

NIR : R-109516-6

Next Page...



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Salaberry de Valleyfield (Québec) J6S 5L1  
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**Page** 2

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HAWKESBURY, Ontario, K6A 1K7

#### Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

**Instruction** F-M

**Delivery Route** 5

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
<b>3</b> PLATE 44W 2 1/2 RANDOM ✓ P44-212-V <b>4088</b>  COUPE AU FEU FEU <b>3</b>  1 PC 3-1/2" X 36"  LINE#4  ** TRANSIT ST-JEROME 18-06 ** Heat : 7B6102 <i>AK</i>	118.32	1.16	PI2_\$CLB		14 30						
<b>4</b> ROUND ALU 7 6061-T6 * ✓ RAL-7 <b>8708</b>  AC17227-TH-2018-06-14	277.08	6.00	PI_\$CLB		10pcs						

NIR : R-109516-6

Next Page...



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Delivery date **2018/06/20**  
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Salesman  
Carrier OUELLETTE VALLEYFIELD  
Credit Terme Net 30 Days  
Page 3

### Billed to

DART AEROSPACE LTD  
1270 , ABERDEEN ST.  
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### Shipped to

, Ontario,

Att : CHANTAL LAVOIE T l.: 613-632-5200

Instruction F-M

Delivery Route 5

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
SAW CUT SCIE 1  10 X 7.125" LG  LINE#5 Heat 200025409 AT		10.00	UN		104						
5 SHEET SS 20G SS304-2B (4 X 8) ✓ FESS-20G483042B 3430  PALLET EMB 11  4 X 4' X 8'  LINE#6 Heat 697E AT	200.96	128.00	PI2_\$CLB		44						
		1.00	UN								

NIR : R-109516-6

Next Page...



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935, Boul. du H vre  
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Fax: 450-377-5696 M l: 514-336-4246 Ext.: 866-456-4242

**Customer N ** CLI0001056  
**Date** 2018/06/11  
**Delivery date** **2018/06/20**  
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**Carrier** OUELLETTE VALLEYFIELD  
**Credit Terme** Net 30 Days  
**Page** 4

#### Billed to

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1270 , ABERDEEN ST.  
HAWKESBURY, Ontario, K6A 1K7

#### Shipped to

, Ontario,

Att : CHANTAL LAVOIE T l.: 613-632-5200

**Instruction** F-M

**Delivery Route** 5

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
<b>6</b> ALU SHEET .064 (14G) 5052-H32 RANDOM FEAL-0645052-V <b>3176</b>  2 X 4' X 8' (PVC 1 SIDE)  LINE#7  AC17228-YR-2018-06-14 Heat : 5180160021-6	57.66	64.00	PI2_\$CLB		24 4x8						
<b>7</b> ROUND SS 3/8 304 (R) RSS-38 <b>5768</b>  1 X 12' R/L  LINE#8 Heat : 1711164	4.51	12.00	PI_\$CLB		14 12"						

NIR : R-109516-6

Next Page...



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**Date** 2018/06/11  
**Delivery date** **2018/06/20**  
**Your order N ** 40159  
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**Salesman**  
**Carrier** OUELLETTE VALLEYFIELD  
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**Page** 5

#### Billed to

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1270 , ABERDEEN ST.  
HAWKESBURY, Ontario, K6A 1K7

#### Shipped to

, Ontario,

Att : CHANTAL LAVOIE T l.: 613-632-5200

**Instruction** F-M

**Delivery Route** 5

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
<b>8</b> ROUND SS 1/2 303 (R) RSS-12303 <b>5727</b>  6 X 12' R/L  LINE#9 Heat : 520R <i>AM</i>	48.02	72.00	PI_\$CLB		6x 12' 1"						
<b>9</b> ROUND SS 3/4 303 (R) RSS-34303 <b>5761</b>  6 X 12' R/L  LINE#10 Heat : 5J049 <i>AM</i>	108.14	72.00	PI_\$CLB		6x 12'						

**Total Weight (Lbs) :** 985.57

**NIR :** R-109516-6

#### Conditions :

All sold and delivered materials remain the property of "Acier Ouellette Inc" until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by "Acier Ouellette Inc." is the same as offered and honored by the manufacturer and his warranty is transferred by "Acier Ouellette Inc." to the client. The buyer hereby accepts to respect the following conditions: Net 30 days from billing date and the buyer accepts to pay administration charges of 2% per month (24% per annum) on all past due amounts over 30 days. Any default in respect with this contract will lead to payment by acceleration and permits to the seller, at his choice to claim for the balance due or the repossession of the goods sold. All claims must be made within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to a 25% restocking charge.

Prepared By :  
Verified By : *AM*

Delivered By :  
Time

*Customer's Signature*  
Y M D  
Date

**Total (\$CAD)**



ACIER OUELLETTE INC.

935, Boul. du Hâvre  
Salaberry de Valleyfield (Québec) J6S 5L1  
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248  
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Customer No

Date

Delivery date

Your order No

Processed by

Salesman

Carrier

Credit Terme

Page

1

Billed to

DART AEROSPACE LTD

1270 , ABERDEEN ST.

HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Instruction F-M

Product Description

1 PLATE 4140 HEAT TREAT 3 NS

P4140-3H

8508

2 PCS 8" X 144"

LINE#2

AC12226-FU-2018-06-23  
Heat: 300536

Weight Qty U/M

1 960.32

16.00

P12

CMD

EXP

B/O

PCS NB

IN

I

S

C

OUT

Internal Use Only

Prepared By :

Verified By :

Delivered By :

Time

Customer's Signature

Date

Y

M

D

Total (\$CAD)

Total Weight (Lbs) : 1 960.32  
NIR : R-109516-6

Conditions :  
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DELIVERY - CLIENT

Copy

CO00094529



17524

DATE

17224N

# Chemical certification Certification chimique

Order Num / No. Commande	Vendor / Fournisseur	Country of origin / Pay d'origine	Date	Heat / coulée	Material ID # / No. matière
AC-17226	46	SLOVENIA	08/31/17	300536	
Grade / Nuance	Conditions				
4140 PLT	HEAT TREATED				
Shape / Forme	Size / Dimension	Specifications			
FLAT	3.000	ASTM A829/A829M			

Chemical composition / Analyse chimique					
Carbon (C)	Silicon (Si)		Manganese (Mn)		Phosphorus (P)
Mini / maxi 0.3700 / 0.4400	0.1500 / 0.3500		0.6500 / 1.1000		0.0100 / 0.0190
Actual % 0.410	0.226		0.743		0.007
Sulphur (S)	Chromium (Cr)		Nickel (Ni)		Molybdenum (Mo)
Mini / maxi 0.0200 / 0.0400	0.7500 / 1.2000		0.1000 / 0.2000		0.1500 / 0.2500
Actual % 0.001	0.950		0.530		0.180
Cooper (Cu)	Vanadium (V)		Aluminium (Al)		Tungsten (W)
Mini / maxi 0.1900 / 0.2900	0.0400 / 0.0500		0.0000 / 0.0000		0.0000 / 0.0000
Actual % 0.183	0.032		0.032		0.000
Cobalt (Co)	Titanium (Ti)				
Mini / maxi 0.0000 / 0.0000	0.0000 / 0.0000		0.0000 / 0.0000		0.0000 / 0.0000
Actual % 0.000	0.000		0.000		0.000
Mechanical properties / Propriétés Mécaniques					
Yield strenght / Elasticité	Tensile / Rés. à la traction	Elongation / Allon. (%)	Red. of area / Surface (%)	RC	Surface Hd / Dureté
0.000 PSI	0.000 PSI	0.00	0.00		270-278 BHN

## Note:

We certify that the above data has been verified and are conform to an original mill or supplier certificate supplied to us with the material

Nous certifions que les données ci haut on été vérifier et sont conformes d'après un certificat originale qui nous a été fourni par notre fournisseur.

Prepared by: / Préparé par:

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-4140-5-3.000x8.000  
DATE: 18/06/21

PO / BATCH NO.: P0040159/508247

MATERIAL CERT REC'D: Yes  
QUANTITY RECEIVED: 2414  
QUANTITY INSPECTED: 2414  
QUANTITY REJECTED: 0

THICKNESS ORDERED: 3"  
THICKNESS RECEIVED: 3"  
SHEET SIZE ORDERED: —  
SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/> (N)	
CORRECT FINISH	<input checked="" type="checkbox"/> Y N	
CORROSION	Y <input checked="" type="checkbox"/> (N)	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> Y N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> Y N	<u>A57M A824</u>
CORRECT THICKNESS	<input checked="" type="checkbox"/> Y N	
PHOTO REQUIRED	Y <input checked="" type="checkbox"/> (N)	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> Y N	<u>AT: 360536</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> Y N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="checkbox"/> (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="checkbox"/> (N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK.					
RECORD RESULTS BELOW					
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	WEBSTER
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

*Testers located in the Quality Office*

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>A. H. [Signature]</u> <small>DAS 9-89</small>	SIGNED OFF BY: _____
DATE: <u>18/06/21</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	18-544	18.2.13	VM	ML

## SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL : AISI 4140 / 4142 STEEL SHEET OR PLATE  
 MINIMUM ROCKWELL C = 28 Rc  
 MAXIMUM ROCKWELL C = 32 Rc

SPECIFICATION: ASTM A829 AMS 6395

PART NUMBER: MT-4140-S-(T.TTT) x [W.WWW]  
 WHERE "T.TTT" = THICKNESS IN INCHES  
 WHERE "W.WWW" = WIDTH IN INCHES (OPTIONAL FOR SPECIFYING CUT PLATE)

EX. 0.063" THICK SHEET = MT-4140-S-0.063  
 EX. 3.5" WIDE BY 0.500" THICK PLATE = MT-4140-S-0.500X3.500

<b>DART</b> AEROSPACE		<small>Hawthornbury, Ontario, Canada</small>	
TITLE AISI 4140 / 4142 STEEL SHEET OR PLATE			
PART NO. MT-4140-S		REV. A	
TOOL NO. -		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES INTERPRET PER ASME Y14.5M 2009 DIMENSIONS APPLY AFTER FINISHING	
INITIALS AND DATE		TOLERANCES	
DESIGNED BY: VM 2/13/2018		XXX ± .005	FRACTIONS ± 1/8
DRAWN BY: VM 02/13/2018		XX ± .01	ANGLES ± .5°
CHECKED BY: VM 02/13/2018		X ± .1	SURFACE ROUGHNESS
MFG REVIEW BY: DD 02/13/2018			
APPROVED BY: ML 02/14/2018		SCALE: NTS	SHEET 1 OF 1
COPYRIGHT © 2018 BY DART AEROSPACE LTD			
<small>THIS DOCUMENT IS UNCLASSIFIED AND CONFIDENTIAL AND IS RELEASED ON THE EXPIRATION DATE OR MAY BE RELEASED AT ANY OTHER TIME BY THE DISSEMINATION AUTHORITY. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION FROM DART AEROSPACE LTD.</small>			

# RAPPORT DE TEST MATÉRIEL

4RA 2205 #5925

49964

## Vendu

à : ACIER OUELLETTE INC.

Daniel Filion

22 John-F. Kennedy

St-Jerome, QC

J7Y 4B6

Canada

## Expédier

à : ACIER OUELLETTE INC.

Daniel Filion

22 John-F. Kennedy

St-Jerome, QC

J7Y 4B6

Canada

N° bon de livraison

BL17-01996

Votre n° de commande

AC5674

Date de document

5/23/2017

Notre n° de vente

SO17-00951

Description												
1.250 x 1.250 x 288.000 x 0.125 HR A500 B/C												
T1112/1125												
Heat Number												
745316												
Made In												
Canada												
C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V	
0.170	0.730	0.004	0.007	0.020	0.340	0.070	0.001	0.005	0.030	0.030	0.001	
Yield (Psi)												
Tensile (Psi)												
ELN, ZIN (%)												
55,100												
65,200.00												
25.4												
ASTM A500 GR B & C												

Description												
1.000 x 1.000 x 288.000 x 0.125 HR A500 B/C												
T1112/1125												
Heat Number												
745319												
Made In												
Canada												
C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V	
0.170	0.720	0.004	0.008	0.020	0.042	0.050	0.001	0.003	0.020	0.040	0.002	
Yield (Psi)												
Tensile (Psi)												
ELN, ZIN (%)												
57,100												
65,300.00												
25.6												
ASTM A500 GR B & C												

Description												
1.500 x 1.000 x 288.000 x 0.125 HR A500 B/C												
T1121/1125												
Heat Number												
745320												
Made In												
Canada												
C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V	
0.170	0.720	0.006	0.007	0.020	0.053	0.060	0.001	0.005	0.020	0.050	0.002	
Yield (Psi)												
Tensile (Psi)												
ELN, ZIN (%)												
55,100												
65,200.00												
25.9												
ASTM A500 GR B & C												

Description												
2.000 x 2.000 x 288.000 x 0.125 HR A500 B/C												
T1121/1125												
Heat Number												
784036												
Made In												
Canada												
C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V	
0.180	0.800	0.008	0.007	0.017	0.046	0.049	0.002	0.004	0.018	0.044	0.002	
Yield (Psi)												
Tensile (Psi)												
ELN, ZIN (%)												
59,800												
68,000.00												
28												
ASTM A500 GR B & C												

Les résultats reportés sur ce document représentent les attributs actuels du matériel fourni et indiquent la conformité complète avec toutes les spécifications applicables et les conditions contractuelles.

# SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: ASTM A500 STEEL RECTANGULAR TUBING  
 SPECIFICATION: ASTM A500 OR ASTM A513  
 PART NUMBER: MT-A500-TR-(H,HHH)x(W,WWW)(T,TTT)

WHERE H,HHH IS HEIGHT IN INCHES  
 WHERE W,WWW IS WIDTH IN INCHES  
 WHERE T,TTT IS WALL THICKNESS IN INCHES

EG. 2" x 1" RECTANGULAR TUBING WITH .188" WALL THICKNESS = MT-A500-TR-2.000x1.000W0.188  
 TOLERANCES PER MANUFACTURER SPECIFICATIONS

REV.	DESCRIPTION	DATE	BY	APPROVED
A	NEW ISSUE	1709 06	VM	WM

<b>DART</b> AEROSPACE		Title	
ASTM A500 STEEL RECTANGULAR TUBING		DRAW NO.	
REV. A		DESIGN BY: VM 9/8/2017	
		DRAWN BY: VM 09/12/2017	
		CHECKED: VM 09/12/2017	
		MFG. APPR.: DP 09/13/2017	
		QA APPR.: VM 09/14/2017	
		APPROVED: VM 09/14/2017	
		DATE: 9/12/2017	
		SCALE: NTS	
		WEIGHT: N/A	
		SHEET 1 OF 1	
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CCN 17 655

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-A500-TR-1,500xL,000Wx0.125  
 DATE: 18/06/21

PO / BATCH NO.: P0640159/5082716

MATERIAL CERT REC'D: Yes  
 QUANTITY RECEIVED: 2441  
 QUANTITY INSPECTED: 2441  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.125"  
 THICKNESS RECEIVED: 0.125"  
 SHEET SIZE ORDERED: —  
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(V) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(V) N	
CORRECT MATERIAL PER M-DRAWING	(V) N	<u>A57M A500</u>
CORRECT THICKNESS	(V) N	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(V) N	<u>47:745320</u>
CORRECT MATERIAL IDENTIFICATION	(V) N	
CORRECT M# ON THE MATERIAL	(V) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK.					
RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AT</u>	SIGNED OFF BY: _____
DATE: <u>18/06/21</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



# CERTIFICATE OF TEST CERTIFICAT D'ESSAIS

15954  
Page 01 of 03 (3P)

4937

CUSTOMER ORDER NUMBER  
NUMÉRO DE COMMANDE DU CLIENT

Certification Date  
7-MAY-2018

Invoice Number  
S706880

AC00015954

506433

PART NUMBER/NUMÉRO DE PIÈCE

SOLD TO: ACIER OUELLETTE INC. SHIP TO: ACIER OUELLETTE INC.  
VENDU À: DIVISION SALABERRY DE VALLEYFIELD DIVISION SALABERRY DE VALLEYFIELD  
935, BOUL. DU HAVRE 935, BOUL. DU HAVRE  
SALABERRY-DE-VALLEYFIELD QC J6S 5L1 SALABERRY-DE-VALLEYFIELD QC J6S

Description: 4140/4142 HR HT BAR STRESS FREE 269/321 BHN

Line Total: 470 LB

2 RD X 20" R/U  
HEAT: 75069217

ITEM: 506433

Specifications:  
ASTM A193 GR B7 16 ASTM A434 GR BC 17 ASME SA193 GR B7  
ASTM A322 13 JDM AO-QL-2 4/17 EN 10204 3.1  
CAT 1E0024 ASTM A29/A29M 16 MIC 12016 ADD 1 16  
ASTM E112 ASTM E10 15 ASTM A255 10  
ASTM A304 16 ASTM E45 METHOD A 13 ASTM A255 10  
ASTM A370 17 ASTM E8 16 ASTM E381 01

## CHEMICAL ANALYSIS

	C	MN	P	S	SI	NI	CR	MO
0.41	0.90	0.021	0.035	0.25	0.12	0.91	0.18	
	CU	SN	AL	V	B	CA	NB	H
0.23	0.01	0.025	0.004	0.0005	0.001	0.003	0.0001	

RCPT: R409925

COUNTRY OF ORIGIN : USA

## MECHANICAL PROPERTIES

DESCRIPTION	YLD STR KSI	ULT TEN KSI	%ELONG IN 02 IN	%RED IN AREA	HARDNESS BHN
	125.0	141.0	20.0	55.0	308

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. Les informations ci-haut-mentionnées sont transcrites du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut. The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession. Par les présentes, nous certifions que le matériel couvert par ce rapport n'a été en contact avec le mercure ci-haut.

MANAGER QUALITY ASSURANCE  
GÉRANT DE L'ASSURANCE QUALITÉ



# CERTIFICATE OF TEST CERTIFICAT D'ESSAIS

Page 02 of 03

Certification Date  
7-MAY-2018

CUSTOMER ORDER NUMBER  
NUMERO DE COMMANDE DU CLIENT  
AC00015954

Invoice Number  
S706880

PART NUMBER/NUMERO DE PIECE  
506433

SOLD TO: ACTIER OUELLETTE INC.  
DIVISION SALABERRY DE VALLEYFIELD  
VENDU A: 935, BOUL. DU HAVRE EXPEDIE A: 935, BOUL. DU HAVRE  
SALABERRY-DE- VALLEYFIELD QC J6S 5L1SALABERRY-DE- VALLEYFIE QC J66

Description: 4140/4142 HR HT BAR STRESS FREE 269/321 BHN  
2 RD X 20' R/L Line Total: 470 LB

HEAT: 75069217	ITEM: 506433
END-QUENCH HARDENABILITY (JOMINY - RC)	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	
57 57 57 57 57 57 56 55 54 52 51 50 49 48 47	
16 18 20 22 24 26 28 30 32 34 36 38	
46 45 45 45 43 41 40 40 38	

IDEAL DIAMETER : 5.3 IN GRAIN SIZE : 5 - 8

## CLEANLINESS

	A		B		C		D	
	THIN	THICK	THIN	THICK	THIN	THICK	THIN	THICK
MAX	MAX	MAX	MAX	MAX	MAX	MAX	MAX	MAX
avg	2.5	0.8	1.0	0.0	0.5	0.0	1.4	0.4

STRAND CAST VACUUM DEGASSED  
MATERIAL IS FREE FROM MERCURY CONTAMINATION  
NO WELD REPAIR PERFORMED ON MATERIAL  
THERMAL TREATMENT: OK  
AUST TEMP 1635 F TIME (MIN.) 2.20  
QUENCH TEMP 100 F TIME (MIN.) 0.70 MEDIA WATER  
TEMPER TEMP 1350 F TIME (MIN.) 2.20  
MACRO: OK  
MICROL: OK

COMMENTS  
red. ratio 21.76 to 1.0

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcrites du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with any corrosive medium in our possession. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

MANAGER QUALITY ASSURANCE  
GERANT DE L'ASSURANCE QUALITÉ

# CERTIFICATE OF TEST CERTIFICAT D'ESSAIS

Certification Date  
7-MAY-2018

CUSTOMER ORDER NUMBER  
NUMERO DE COMMANDE DU CLIENT  
AC00015954

Invoice Number  
S706880

PART NUMBER/NUMERO DE PIECE

ACIER OUELLETTE INC.	ACIER OUELLETTE INC.
DIVISION SALABERRY DE VALLEYFIELD	DIVISION SALABERRY DE VALLEYFIELD
935, BOUL. DU HAVRE	935, BOUL. DU HAVRE
SOLD TO:	SHIP TO:
VENDU A: SALABERRY-DE- VALLEYFIELD	SALABERRY-DE- VALLEYFIELD
Description: 4140/4142 HR HT BAR STRESS FREE 269/321 BHN	QC J6;
2 RD X 20' R/L	
HEAT: 75069217	ITEM: 506433
100% melted & mfg in usa	
free from radioactive material	Line Total: 470 LB

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mencionnées sont transcrites du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession./Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

MANAGER QUALITY ASSURANCE  
GÉRANT DE L'ASSURANCE QUALITÉ

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-4140-R2.000  
DATE: 18/06/21

PO / BATCH NO.: P0040159/308278

MATERIAL CERT REC'D: Yes  
QUANTITY RECEIVED: 1244  
QUANTITY INSPECTED: 1244  
QUANTITY REJECTED: 0

THICKNESS ORDERED: 2"  
THICKNESS RECEIVED: 2"  
SHEET SIZE ORDERED: -  
SHEET SIZE RECEIVED: -

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT FINISH	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
CORROSION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	ASTM A29
CORRECT THICKNESS	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
PHOTO REQUIRED	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	47: 75069217
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK.					
RECORD RESULTS BELOW					
TYPE OF MATERIAL	HRB	HRB	DUR A	DUR D	WEBSTER
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

Testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AS</u> <small>DAS</small>	SIGNED OFF BY: _____
DATE: <u>18/06/21</u> <small>89</small>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in


REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	17-790	17.12.13	VM	ML

## SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL : AISI 4140 ROUND BAR  
 MINIMUM ROCKWELL C = 20 Rc  
 MAXIMUM ROCKWELL C = 38 Rc

SPECIFICATION: ASTM A29, AMS 6349, AMS 6382, AMS 6529

PART NUMBER: MT-4140-R-[D.DDD]  
 WHERE "D.DDD" = DIAMETER IN INCHES  
 EX. 4" ROUND BAR = MT-4140-R-4.000

 <b>DART</b> AEROSPACE			
Hawkesbury, Ontario, Canada			
TITLE <b>AISI 4140 ROUND BAR</b>			
PART NO. <b>MT-4140-R</b>			REV <b>A</b>
TOOL NO.		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES INTERPRET PER ASME Y14.5M-2009 DIMENSIONS APPLY AFTER FINISHING	
INITIALS AND DATE			
DESIGNED BY:	VM 17/12/13	TOLERANCES:	FRACTIONS ± 1/8
DRAWN BY:	VM 12/13/2017	XX ± .005	ANGLES ± .5°
CHECKED BY:	ML 12/19/2017	X ± .1	SURFACE ROUGHNESS
MFG REVIEW BY:	DP 12/20/2017	SCALE: NTS	SHEET 1 OF 1
APPROVED BY:	ML 12/20/2017	COPYRIGHT © 2017 BY DART AEROSPACE LTD	
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94527

4088

PO-40159  
P4/212V

OUTSTANDING CAPITAL : 3.500.000.000 TL

TEST CERTIFICATE  
EN 10204 : 2004 TYPE 3.1

DATE : 16/08/2017  
CERTIFICATE NO : 71275881  
PAGE NO : 1

CUSTOMER ORDER NO : 78602776706  
DIMENSIONS, mm : 63.500 X 2438 X 6056 ( 2.500 X 96 X 240 INCH )  
STANDARD & GRADE : CSA G40.21-13 / ASTM A572-15 300M/350M / GR50 TYPE 2 (ERDEMİR 3246)  
PRODUCT TYPE & DEFINITION : LKX : HOT ROLLED HEAVY PLATE WITH MILL EDGE

2596 NO MERCURY COMPOUNDS NO WELD REPAIR  
FULLY KILLED AND FINE GRAIN PRACTICE

PRODUCT INFORMATION

MECHANICAL PROPERTIES

CHEMICAL COMPOSITION, CAST ANALYSIS

TICKET NO	WEIGHT (MT)	HEAT NO	COIL	P.S	TENSILE TEST	BEND	Y/T	HARD	POSITION : HARD TEST, Joule	TEMP	HIGH
					%	EL	VAL.	VAL.		%	%

0237034135	7,645	7B5345	7B534510000210	1	TT	368,7	557,0	25	0,169	1,255	0,015	0,003	0,212	0,032	0,053	0,038	0,067	55
0237034136	7,630	7B5345	7023013057L010	1	TT	387,4	560,0	24	0,169	1,255	0,015	0,003	0,212	0,032	0,053	0,038	0,067	55
0237034137	7,620	7B5345	7023013058L010	1	TT	387,4	560,0	24	0,169	1,255	0,015	0,003	0,212	0,032	0,053	0,038	0,067	55
0237034138	7,580	7B5345	7023013065L010	1	TT	387,4	560,0	24	0,169	1,255	0,015	0,003	0,212	0,032	0,053	0,038	0,067	55
0237032520	7,620	7B5347	7B534710000310	1	TT	383,4	561,9	24	0,188	1,240	0,012	0,005	0,202	0,030	0,087	0,039	0,068	66
0237032521	7,620	6D5436	7023013433L010	1	TT	367,7	557,0	25	0,177	1,422	0,009	0,005	0,199	0,048	0,073	0,051	0,077	56
0237032537	7,630	6D5436	7023013449L010	1	TT	367,7	557,0	25	0,177	1,422	0,009	0,005	0,199	0,048	0,073	0,051	0,077	56
0237032782	7,670	6D5436	7023013501L010	1	TT	366,8	563,9	25	0,177	1,422	0,009	0,005	0,199	0,048	0,073	0,051	0,077	56
0237032783	7,660	7B5356	7B535610000210	1	TT	387,4	560,0	24	0,189	1,255	0,015	0,003	0,212	0,032	0,053	0,038	0,067	55
0237032784	7,640	7B5388	7B538810000110	1	TT	388,3	564,9	24	0,182	1,438	0,014	0,003	0,213	0,031	0,058	0,042	0,073	49
0237032784	7,640	7B5350	7B535010000210	1	TT	358,9	544,3	25	0,168	1,379	0,015	0,006	0,193	0,047	0,066	0,041	0,073	40

WE (THE MANUFACTURER) HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE BY THE BASIC OXYGEN PROCESS AND TESTED IN ACCORDANCE WITH THE RULES OF CSA G40.21-13 / ASTM A572-15 300M/350M / GR50 TYPE 2 (ERDEMİR 3246) WITH SATISFACTORY RESULTS.



NOTE: T:Top, M:Middle, E:End, T:Transverse, L:Longitudinal, P.S:Piece of Slice, P.P:Piece of Plate  
CENSIS Number: (Istanbul Head Office): 0352-0006-4260-0020; Trade Registry Number (Istanbul Department): 90659; Trade Registry Number (Eregli Department): 15747272  
Head Office: Istanbul: Barbaros Mah. Ardic Sok. No: 6 34746 Alagehir | ISTANBUL - TURKEY  
www.erdemir.com.tr



TEST CERTIFICATE  
EN 10204 : 2004 TYPE 3.1

21.6

ORDER NO : 78602776706  
DIMENSIONS, mm : 63.500 X 2438 X 6096 ( 2,500 X 96 X 240 INCH )  
STANDARD & GRADE : CSA G40.21-13 / ASTM A572-15 300M/350M / GR50 TYPE 2 (ER0B) (R 3246)  
PRODUCT TYPE & DEFINITION : LK: HOT ROLLED HEAVY PLATE WITH MILL EDGE

2596 NO MERCURY COMPOUNDS NO WELD REPAIR  
FULLY KILLED AND FINE GRAIN PRACTICE

MECHANICAL

ANALYSIS OF CHEMICAL COMPOSITION, CAST

[illegible][illegible]

WE (THE MANUFACTURER) HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE BY THE BASIC OXYGEN PROCESS AND TESTED IN ACCORDANCE WITH THE RULES OF CSA G40.21-13 / ASTM A572-15 300M/350M / GR50 TYPE 2 (EROMIR 3246) WITH SATISFACTORY RESULTS.



NOTE: T: Top, M: Middle, E: End, T: Transverse, L: Longitudinal, P: S: Piece of Slice, P: P: Piece of Plate  
MESSIS Number: (Istanbul) Head Office: 0352-0006-4260-0020, Trade Registry Number: (Istanbul) Department  
Head Office: (Istanbul: Barbaros Mah. Ardic Sok. No: 6 34746 Atesehir | ISTANBUL - TURKEY



www.erdemir.com.tr





**SPECIFICATION CONTROL DRAWING**

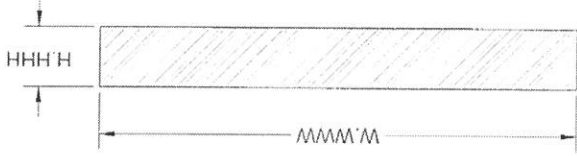
PURCHASE MATERIAL:

SPECIFICATION:

PART NUMBER:

EXAMPLE:

HOT ROLLED STEEL BAR  
ASTM A36 OR ASTM A1011 OR 44W OR ASTM A1018  
MT-HRS-B-[W.WWW]x[H.HHH]  
WHERE W.WWW IS BAR WIDTH IN INCHES  
WHERE H.HHH IS BAR THICKNESS IN INCHES  
MT-HRS-B-2.000x0.250  
TOLERANCES PER MANUFACTURER SPECIFICATIONS



<b>DART</b> AEROSPACE Hawthorn, Ontario, Canada	
TITLE HOT ROLLED STEEL BAR	
DWG NO.	MT-HRS-B
REV	B
DESIGN BY: SAC 07/09/2017	
DRAWN BY: SAC 09/26/2017	
CHECKED: VM 09/27/2017	
MR. G. APPEL: VM 10/05/2017	
APPROVED: [Signature] VM 10/05/2017	
DATE: 26/09/2017	
SCALE: NTS	
WEIGHT: N/A	
SHEET 1 OF 1	
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REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
B	REMOVED LENGTH DIMENSION	17-075	26/09/2017	SAC	WM

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-HES-B-2.500 x 3.500  
DATE: 18/06/21

PO / BATCH NO.: P0040154/5082729

MATERIAL CERT REC'D: Yes  
QUANTITY RECEIVED: 34+  
QUANTITY INSPECTED: 34+  
QUANTITY REJECTED: 0

THICKNESS ORDERED: \_\_\_\_\_  
THICKNESS RECEIVED: \_\_\_\_\_  
SHEET SIZE ORDERED: \_\_\_\_\_  
SHEET SIZE RECEIVED: \_\_\_\_\_

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(N) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(N) N	
CORRECT MATERIAL PER M-DRAWING	(N) N	V/A for Bert tooling use only PD
CORRECT THICKNESS	(N) N	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(N) N	MT: 786102
CORRECT MATERIAL IDENTIFICATION	(N) N	
CORRECT M# ON THE MATERIAL	(N) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK.					
RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRB	HRB	DUR A	DUR D	WEBSTER

Testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AT</u> <sup>DAS</sup>	SIGNED OFF BY: _____
DATE: <u>18/06/21</u> <sup>8:30</sup>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

94527

Dart

1-7227-N

# KAISER ALUMINUM FABRICATED PRODUCTS

*Best in  
Quality*
**CERTIFIED TEST REPORT**  
<http://Online.KaiserAluminum.com>

KAISER ALUMINUM  
FABRICATED PRODUCTS, LLC  
5205 KAISER DRIVE  
KALAMAZOO, MI 49048

CUSTOMER PO NUMBER:		CUSTOMER PART NUMBER:		PRODUCT DESCRIPTION:	
5400396921-7		ALRD00065		KAISERSELECT PRECISION ROD 7.000 +/- .022	
KAISER ORDER NUMBER:	LINE ITEM:	SHIP DATE:	KAISER LOT NUMBER:	ALLOY:	TEMPER:
6051775	007	04/20/2018	Z00025409	6061	T6511B
WEIGHT SHIPPED:	QUANTITY:	B/L NUMBER:	DIA/M/DIA/TH/KNS:	WIDTH:	LENGTH:
2172.000 LB	4.000 PCS	622542			12.000 FT
SHIP TO:			SOLD TO:		

## Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS(KSI)	YTS(KSI)	ELONG%	HARDNESS	CONDUCT.	BEND
Z00025409	0001	0001	56.9	53.6	12.1	RE 95	N/A	N/A
Z00025409	0002	0001	55.0	50.9	12.6	RE 94	N/A	N/A

## Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	0.00
108482	.75	.29	.29	.09	.93	.10	.06	.02	.00	.00	.00	.01	.03

## Applicable Requirements:

PER ASTM-B221-14, STENCILED ASME-SB221 2009 SECT II PER AMS-QQ-A-200/8A UNS# A96061  
 MEETS ALL SPECIFICATION REQUIREMENTS FOR 6061-T6511/T6 ELEVATED MINIMUM MECHANICAL  
 PROPERTIES AS FOLLOWS: UTS = 42.0 KSI MIN YIELD = 38.0 KSI MIN ELONGATION = 10.0% MIN

## Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA  
 MERCURY IS NOT A NORMAL BACKGROUND ELEMENT IN ALUMINUM ALLOYS. NEITHER MERCURY NOR ANY  
 OF ITS COMPOUNDS ARE UTILITIZED BY KAISER ALUMINUM IN THE MANUFACTURE OF THIS MATERIAL.

## CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC hereby certifies that metal shipped under this order has been  
 inspected and tested and found in conformance with applicable specifications forming a part of the  
 description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on  
 Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

Aimee L. Macnowski, Quality & Technology Manager

*Aimee L. Macnowski*

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061 T6 R7,000  
DATE: 18/06/21

PO / BATCH NO.: P0040159/508280

MATERIAL CERT REC'D: Yes  
QUANTITY RECEIVED: 5.938 ft  
QUANTITY INSPECTED: 5.138 ft  
QUANTITY REJECTED: 0

THICKNESS ORDERED: 7.125"  
THICKNESS RECEIVED: 7.115"  
SHEET SIZE ORDERED: -  
SHEET SIZE RECEIVED: -

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <u>(N)</u>	
CORRECT FINISH	<u>(Y)</u> N	
CORROSION	Y <u>(N)</u>	
CORRECT GRAIN DIRECTION	<u>(Y)</u> N	
CORRECT MATERIAL PER M-DRAWING	<u>(Y)</u> N	<u>AMS-882-A-28018</u>
CORRECT THICKNESS	<u>(Y)</u> N	
PHOTO REQUIRED	Y <u>(N)</u>	
CORRECT REF # TO LINK CERT	<u>(Y)</u> N	<u>HT: 200023409</u>
CORRECT MATERIAL IDENTIFICATION	<u>(Y)</u> N	
CORRECT M# ON THE MATERIAL	<u>(Y)</u> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <u>(N)</u>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <u>(N)</u>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK.					
RECORD RESULTS BELOW					
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	WEBSTER
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

Testers located in the Quality Office

<b>QC 18 INSPECTION</b>		<b>ENGINEERING SIGNOFF (if required)</b>	
INSPECTED BY: <u>AT 18/06/21</u>	DAS	SIGNED OFF BY:	
DATE: <u>18/06/21</u>	9	DATE:	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

# SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: M6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR

SPECIFICATION: QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)  
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)  
OR ASTM B211 OR ASTM B221

PART NUMBER: M6061T6R[D.DDD]  
DIA.

WHERE "D.DDD" = DIAMETER IN INCHES

EG. 5/8" ROUND BAR = M6061T6R0.625

**RELEASED**  
2009-09-09  
*MB*

B	REFORMAT DWG. ADD B211& B221 SPEC (ZN D6-1). REF PAR 08-020A	CP	09.07.13
A	NEW ISSUE	DS	01.06.08
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>[Signature]</i>	DRAWING NO.	REV. B
CHECKED	<i>[Signature]</i>	M6061T6R	SHEET 1 OF 1
MFG. APPR.	<i>[Signature]</i>	TITLE	SCALE
APPROVED	<i>[Signature]</i>	6061-T6 ROUND BAR	NTS
DE APPR.	<i>[Signature]</i>	COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PROPRIETARY AND IS SUPPLIED TO THE EXCLUSIVE USE OF THE USER. NOT TO BE USED FOR ANY PURPOSES OR FOR ANY INFORMATION TO ANY OTHER PERSON OR PERSONS WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD.	
DATE	09.07.13		



North American Stainless Canada Inc.  
740 Imperial Road North  
Guelph, ON N1K1Z3  
Canada

## METALLURGICAL TEST REPORT

50899 15908  
6870 Highway 42 East  
Ghent, KY 41045-9615  
(502) 347-6000

Certificate: 380647 1 Mail To:

Ship To:

Date: 2/12/2018 Page: 1

Steel: 304

Customer: 007036 016

Finish: 2B

Corrosion: ASTM A262/15 A; 180Bend-OK

Your Order: 4500849627

NAS Order: DS 0013475 01

### PRODUCT DESCRIPTION:

STAINLESS STEEL COIL, C.R. ANNEALED & PICKLED; UNS 30400  
ASTM A240/17, A480/16b, A666/15; ASME SA240/17, SA480/17, SA666/17  
CHEM ONLY ON FOLLOWING ASTM: A276/17, A479/17, A484/16, A312/16  
CHEM ONLY ON FOLLOWING ASME: SA312/13, SA479/13  
AMS 5513J XMRK; MIL-S-5059D AMEND3 (X CROWN MEAS)  
NACE MR0175/ISO 15156-3:2009 A, MR0103/07; QQS766D-A X MAG PERM  
MIN. SOLUTION ANNEAL TEMP 1900F, WATER QUENCHED

### REMARKS:

Mat'l is Free of Mercury Contamination. No weld repairs.  
EN 10204:2004 3.1; RoHS 1 & 2 Compliant  
Material is Free of Radioactive Contamination  
Steel Making Process: EAF, AOD, & Cont. Casting  
Product Mfg. by a Quality Mgt. Sys. in Conf. w/ISO 9001  
\*Melted & Manufactured in the USA; Mat'l is DFARS Compliant

Product Id	Coil #	Skid #	Thickness	Width	Weight	Length	Mark	Pieces	Commodity Code
02697E A	02697E A		.0360	48.0000	10,360	COIL	3	1	160009446

Lab Accreditation Bureau, ISO/IEC 17025, Certificate# L2323

Chemical Analysis per ASTM A751/14a

CHEMICAL ANALYSIS		CM(Country of Melt)	ES(Spain)	US(United States)	ZA(South Africa)	JP(Japan)	Chemical Analysis for			
HEAT	CM	C %	CR %	CU %	MN %	MO %	N %	NI %	P %	S %
697E	US	.0568	18.0895	.4090	1.6780	.3390	.0719	8.0505	.0305	.0011
		SI %								
		.2505								

### MECHANICAL PROPERTIES

Product Id#	Coil #	l o c	d i r	UTS KSI	20C KSI	.2% YS KSI	20C ELONG %-2"	% Hard RB	Tail Hard
02697E A	02697E A	F	T	103.25	52.54	54.54	87.00	86.50	

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical  
Dept. Mgr.

KRIS LARK

2/12/2018

# SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 304/316 SS SHEET  
ANNEALED

SPECIFICATION: MIL-S-5059  
OR AMS 5513 (304)  
OR AMS 5524 (316)  
OR ASTM A240  
OR ASME SA240

FINISH:

FINISH	DART M-NUMBER IDENTIFIER
UNPOLISHED No. 1	1P
UNPOLISHED No. 2D	2D
UNPOLISHED No. 2B	NONE
POLISHED No. 3	3P
POLISHED No. 4	4P
BUFFED No. 6	6P
BUFFED No. 7	7P
BUFFED No. 8	8P

PART NUMBER: M304S TT GA #P  
GA

WHERE "TT" = GAUGE THICKNESS  
WHERE "#P" = FINISH IDENTIFIER

EG. 16 GAUGE SS SHEET 2B FINISH = M304S16GA  
EG. 16 GAUGE SS SHEET No. 4 POLISHED = M304S16GA4P

GAUGE THICKNESS REFERENCE:

GAUGE	NOM. THICK. (IN)	THICKNESS RANGE (IN)
26	0.01875	0.0178 - 0.019
25	0.021875	0.0199 - 0.023
24	0.025	0.024 - 0.026
23	0.028125	0.027 - 0.029
22	0.03125	0.030 - 0.032
21	0.034375	0.033 - 0.035
20	0.0375	0.036 - 0.040
19	0.04375	0.041 - 0.046
18	0.050	0.047 - 0.052
17	0.05625	0.053 - 0.058
16	0.0625	0.059 - 0.065
15	0.0703125	0.066 - 0.072
14	0.078125	0.073 - 0.083
13	0.09375	0.084 - 0.098
12	0.109375	0.099 - 0.114
11	0.125	0.115 - 0.130
10	0.140625	0.131 - 0.145
9	0.15625	0.146 - 0.160
8	0.171875	0.161 - 0.176
7	0.1875	0.182 - 0.194
6	0.2031	0.194 - 0.212
5	0.2188	0.201 - 0.228
4	0.2344	0.225 - 0.243
3	0.2500	0.238 - 0.262
2	0.2656	0.254 - 0.278
1	0.2813	0.269 - 0.293
0	0.3125	0.301 - 0.325

RELEASED

2015 FEB 04

ECN 15-522 47

DESIGN	DS	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. D
MFG. APPR.		M304S	SHEET 1 OF 1
APPROVED		TITLE	SCALE
DE APPR.		304/316 SS SHEET	NTS
DATE	15.01.06	COPYRIGHT © 2001 BY DART AEROSPACE LTD	
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# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M3045206A  
DATE: 18/06/21

PO / BATCH NO.: P0040159 / 5082801

MATERIAL CERT REC'D: KS  
QUANTITY RECEIVED: 1285t  
QUANTITY INSPECTED: 1285t  
QUANTITY REJECTED: 0

THICKNESS ORDERED: .040  
THICKNESS RECEIVED: .040  
SHEET SIZE ORDERED: 48" x 4' x 8'  
SHEET SIZE RECEIVED: 48" x 4' x 8'

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/>	
CORRECT FINISH	<input checked="" type="checkbox"/> N	
CORROSION	Y <input checked="" type="checkbox"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> N	
CORRECT MATERIAL PER M-DRAWING	Y N	ASTM A240
CORRECT THICKNESS	Y N	
PHOTO REQUIRED	Y N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> N	HT: 6976
CORRECT MATERIAL IDENTIFICATION	Y N	
CORRECT M# ON THE MATERIAL	Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING					
	HRB	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

<b>QC 18 INSPECTION</b>		<b>ENGINEERING SIGNOFF (if required)</b>	
INSPECTED BY: <u>AS</u>	DAS	SIGNED OFF BY: _____	
DATE: <u>18/06/21</u>		DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

94527

Dart

17228N

**GKO****ZHE JIANG GKO ALUMINIUM STOCK CO., LTD.**

XIATAO, FENGJIANG, LUQIAO, TAIZHOU, ZHEJIANG, CHINA

TEL.: +86 576 82696583 FAX.: +86 576 82696589

**MILL TEST REPORT**

**BUYER:**  
**EMPIRE RESOURCES, INC.**  
**2115 LINWOOD AVENUE**  
**FORT LEE, NJ 07024**

Date: 2018-3-20

Invoice: CI01527-1

Contract No.: U01527

Loading Port: Tianjin, China

COUNTRY OF MELT &amp; MANUFACTURE: CHINA

MATERIAL GRADE: 5052H32 AS PER "ASTM B209-14" - AMS/ QQ A 250/8 AND AMS 4016M

Destination: TORONTO

B/L NO.: MAEU964234588

ISF NO.:

ETD: 2018-3-17

No.	PO NO.	DESCRIPTION OF GOODS	ALLOY/T EMER	Specification (inch)	Bundle No.	N.W.	HEAT NO.	Chemical Composition(%)										Mechanical Properties		
						(lbs)		Al	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	T.S (ksi)	Yield.S (ksi)	E(%)
1	U01527	SHEET	5052H32	0.05*48*96	5180160140-3	3272	5180160140	96.89	0.094	0.302	0.007	0.055	2.430	0.199	0.004	0.006	0.014	33.4	24.5	12.0
2	U01527	SHEET	5052H32	0.05*48*96	5180160140-2	3488	5180160140	96.89	0.094	0.302	0.007	0.055	2.430	0.199	0.004	0.006	0.014	33.4	24.5	12.0
3	U01527	SHEET	5052H32	0.05*48*96	5180160140-1	3492	5180160140	96.89	0.094	0.302	0.007	0.055	2.430	0.199	0.004	0.006	0.014	33.4	24.5	12.0
4	U01527	SHEET	5052H32	0.063*48*96	5180160021-4	3770	5180160021	96.92	0.099	0.299	0.004	0.013	2.440	0.200	0.004	0.006	0.012	34.1	24.9	11.0
5	U01527	SHEET	5052H32	0.063*48*96	5180160021-5	3770	5180160021	96.92	0.099	0.299	0.004	0.013	2.440	0.200	0.004	0.006	0.012	34.1	24.9	11.0
6	U01527	SHEET	5052H32	0.063*48*96	5180160021-3	3774	5180160021	96.92	0.099	0.299	0.004	0.013	2.440	0.200	0.004	0.006	0.012	34.1	24.9	11.0
7	U01527	SHEET	5052H32	0.063*48*96	5180160021-7	3774	5180160021	96.92	0.099	0.299	0.004	0.013	2.440	0.200	0.004	0.006	0.012	34.1	24.9	11.0
8	U01527	SHEET	5052H32	0.063*48*96	5180160021-6	3783	5180160021	96.92	0.099	0.299	0.004	0.013	2.440	0.200	0.004	0.006	0.012	34.1	24.9	11.0
9	U01527	SHEET	5052H32	0.063*48*120	5180160153-1	3430	5180160153	96.88	0.106	0.313	0.007	0.061	2.410	0.192	0.005	0.008	0.015	33.4	29.0	13.0
10	U01527	SHEET	5052H32	0.063*48*120	5180160153-3	3435	5180160153	96.88	0.106	0.313	0.007	0.061	2.410	0.192	0.005	0.008	0.015	33.4	29.0	13.0
11	U01527	SHEET	5052H32	0.063*48*120	5180160153-2	3457	5180160153	96.88	0.106	0.313	0.007	0.061	2.410	0.192	0.005	0.008	0.015	33.4	29.0	13.0
12	U01527	SHEET	5052H32	0.08*48*96	5180160148-7	3272	5180160148	96.95	0.089	0.263	0.009	0.054	2.390	0.215	0.004	0.007	0.015	32.6	29.0	14.0
13	U01527	SHEET	5052H32	0.08*48*96	5180160148-6	3280	5180160148	96.95	0.089	0.263	0.009	0.054	2.390	0.215	0.004	0.007	0.015	32.6	29.0	14.0
14	U01527	SHEET	5052H32	0.08*48*96	5180160148-4	3289	5180160148	96.95	0.089	0.263	0.009	0.054	2.390	0.215	0.004	0.007	0.015	32.6	29.0	14.0
15	U01527	SHEET	5052H32	0.08*48*96	5180160148-5	3298	5180160148	96.95	0.089	0.263	0.009	0.054	2.390	0.215	0.004	0.007	0.015	32.6	29.0	14.0

16	U01527	SHEET	5052H32	0.09*48*96	5180160100-C-1	2734	5180160100	96.81	0.103	0.311	0.012	0.085	2.450	0.204	0.005	0.006	0.016	31.9	29.0	11.0
17	U01527	SHEET	5052H32	0.09*48*96	5180160100-C-2	2738	5180160100	96.81	0.103	0.311	0.012	0.085	2.450	0.204	0.005	0.006	0.016	31.9	29.0	11.0
18	U01527	SHEET	5052H32	0.09*48*96	5180160100-C-3	3320	5180160100	96.81	0.103	0.311	0.012	0.085	2.450	0.204	0.005	0.006	0.016	31.9	29.0	11.0
19	U01527	SHEET	5052H32	0.09*48*120	5180160158-4	3404	5180160158	96.89	0.109	0.306	0.008	0.063	2.410	0.196	0.005	0.008	0.010	33.4	29.0	12.0
20	U01527	SHEET	5052H32	0.09*48*120	5180160158-6	3404	5180160158	96.89	0.109	0.306	0.008	0.063	2.410	0.196	0.005	0.008	0.010	33.4	29.0	12.0
21	U01527	SHEET	5052H32	0.09*48*120	5180160158-5	3408	5180160158	96.89	0.109	0.306	0.008	0.063	2.410	0.196	0.005	0.008	0.010	33.4	29.0	12.0

ZHEJIANG GKO ALUMINIUM STOCK CO., LTD.

浙江巨科铝业股份有限公司  
ZHEJIANG GKO ALUMINIUM STOCK CO., LTD.



# SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 5052-H32 ALUMINUM SHEET

SPECIFICATION: QQ-A-250/8 OR AMS-QQ-A-250/8  
OR AMS 4016  
OR ASTM B209

PART NUMBER: M5052H32S | XXX |  
THK |

WHERE ".XXX" = SHEET THICKNESS (IN INCHES)

EG. 0.063" THICK SHEET = M5052H32.063

PREFERRED SIZE: .XXX BY 4FT BY 8FT

**RELEASED**  
2009-10-30  
*MP*

B	REFORMAT DWG. ADD B209 SPEC (ZN D8-1), PAR 08-020A	CP	09.09.26
A	NEW ISSUE	DS	01.08.08
REV.	DESCRIPTION	BY	DATE
DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		M5052H32S	SHEET 1 OF 1
APPROVED		TITLE	SCALE
DE APPR.		5052-H32 SHEET SPEC	NTS
DATE	09.09.26	COPYRIGHT © 2001 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS UNCLASSIFIED AND IS RELEASED IN THE PUBLIC INTEREST OF THE CANADIAN PEOPLE. IT IS NOT TO BE USED FOR ANY PURPOSES, INCLUDING REPRODUCTION, WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD.</small>	

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M5052H335.063  
DATE: 18/06/21

PO / BATCH NO.: 10040157/509282

MATERIAL CERT REC'D: Yes  
QUANTITY RECEIVED: 645t  
QUANTITY INSPECTED: 645t  
QUANTITY REJECTED: 0

THICKNESS ORDERED: .063"  
THICKNESS RECEIVED: .063"  
SHEET SIZE ORDERED: 4'x8'  
SHEET SIZE RECEIVED: 4'x8'

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <u>(N)</u>	
CORRECT FINISH	<u>(Y)</u> N	
CORROSION	Y <u>(N)</u>	
CORRECT GRAIN DIRECTION	<u>(Y)</u> N	
CORRECT MATERIAL PER M-DRAWING	<u>(Y)</u> N	<u>QA-A - 050/8</u>
CORRECT THICKNESS	<u>(Y)</u> N	
PHOTO REQUIRED	Y <u>(N)</u>	
CORRECT REF # TO LINK CERT	<u>(Y)</u> N	<u>17518060021-6</u>
CORRECT MATERIAL IDENTIFICATION	<u>(Y)</u> N	
CORRECT M# ON THE MATERIAL	<u>(Y)</u> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <u>(N)</u>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <u>(N)</u>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK.					
RECORD RESULTS BELOW					
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	WEBSTER
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

*Testers located in the Quality Office*

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>A. Alotaibi</u> <small>DAS</small>	SIGNED OFF BY: _____
DATE: <u>18/06/21</u> <small>S-89</small>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in \_\_\_\_\_



ed 100

ADDM, OFFICE 3M, SUKSESARAK, N. 5, PATKAYAKIANKU, MUMBAI 400 002, INDIA

WORKS: PLOT NO. 31 TO 46, 45/46/48, & 49/2, 142  
(EXP. AREA) CIDC, UNDERBGAON & SURVE

**Website :** [www.chandansteel.net](http://www.chandansteel.net)

Email: [res@schandanstel.net](mailto:res@schandanstel.net)

GS1TN-24AAEC4713B1ZG

**U/c. No.3**

**U/c. Date:**

F824 QC 09A / 02 / 10.12.2012

**MILL TEST / INSPECTION CERTIFICATE 3.1**  
**ACCORDING TO EN 10204: 2005**



It is hereby certified that the above results are true and correct in every detail and are meeting the requirements of specification & purchase order.

Page 6 of 26

**B.S. RAUTELA**  
**MANAGER - QUALITY ASSURANCE**



# SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 304/316 SS ROUND BAR  
(NOTE: AISI 303 NOT ACCEPTABLE)

B SPECIFICATION: ASTM A276

PART NUMBER: M304R | D.DDD |  
DIA.

WHERE "D.DDD" = DIAMETER IN INCHES

EG. 0.75" ROUND BAR = M304R0.750

**RELEASED**  
09/07/15

B	REFORMAT DWG, ADD SPECS (ZN D6-1). REF PAR 08-020A	CP	09.07.15
A	NEW ISSUE	AJS	08.03.03
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS	<b>DART AEROSPACE LTD</b>	
DRAWN	DA	HAWKESBURY, ONTARIO, CANADA	
CHECKED	DA	DRAWING NO.	REV. B
MFG. APPR.	AS	M304R	SHEET 1 OF 1
APPROVED	MD	TITLE	SCALE
DE APPR.	ST	304/316 ROUND BAR	NTS
DATE	09.07.15	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PROPRIETARY AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED IN ANY MANNER OR FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY FORM OR BY ANY MEANS WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M30xR0.375

PO / BATCH NO.: P0040159 / 5082903

DATE: 18/06/21

MATERIAL CERT REC'D: Yes  
 QUANTITY RECEIVED: 12.5t  
 QUANTITY INSPECTED: 12.5t  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: .375"  
 THICKNESS RECEIVED: .375"  
 SHEET SIZE ORDERED: -  
 SHEET SIZE RECEIVED: -

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/> N	
CORRECT FINISH	<input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N	
CORROSION	Y <input checked="" type="checkbox"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N	<u>ASTM A276</u>
CORRECT THICKNESS	<input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N	
PHOTO REQUIRED	Y <input checked="" type="checkbox"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N	<u>HT: 171164</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="checkbox"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="checkbox"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK.					
RECORD RESULTS BELOW					
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	WEBSTER
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

*testers located in the Quality Office*

QC 18 INSPECTION

ENGINEERING SIGNOFF (if required)

INSPECTED BY: <u>AT</u> <small>DAS</small>	SIGNED OFF BY: _____
DATE: <u>18/06/21</u> <small>85</small>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



North American Stainless Canada Inc.  
740 Imperial Road North  
Guelph, ON N1K1Z3  
Canada

# 5727

RSS-12303-U

# METALLURGICAL TEST REPORT

PO. 12848  
6870 Highway 42 East  
Ghent, KY 41045-9615  
(502) 347-6000

49923

Certificate: 371391 3 Mail To:

Ship To:

Date: 1/15/2018 Page: 1

Customer: 007080 003

Steel: 303

Finish: CD

Corrosion:

Your Order: MR6001

NAS Order: IN 0257533 05 Heat Treat Code: 43,147

## PRODUCT DESCRIPTION:

Round Bar, Annealed, Cold Draw  
UNS 30300, ASTM A582/12 EN 10204 3.1, ASTM A484/16  
AMS 5640V TYPE 1, QSS-764B CONDITION A  
SOLUTION ANNEAL TEST 1900F MIN, ASTM F899/12b

## REMARKS:

COMPLIES W/REQUIREMENTS OF DFAR 252.225-7009 EU DIRECTIVE  
2011/65/EU-ROHS. EAP+AOO+CC. NO WELD REPAIR. MELTED AND MFG  
IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

Product Id	Skid #	Diameter	Size	Weight	-----Length-----	Mark	Pieces	Commodity Code
BI9788 9		.5000		1,073	144.00	7	1	

Lab Accreditation Bureau, ISO/IEC 17025, Certificate# L2323

## CHEMICAL ANALYSIS

CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan)

Chemical Analysis per ASTM A751/14a

NAS Heat	CM	C %	CO %	CR %	CU %	MB %	MO %	N %	NI %	P %
520R AT	US	.026	.13	17.09	.35	1.83	.275	.050	8.50	.031
		S %	SI %							
		.3010	.30							

## MECHANICAL PROPERTIES

Product Id	1 d o i c x	HB No.	.2YS KSI	UTS KSI	RA %	Elng % 2"
BI9788 9	R L	191.0	69.04	100.58	41.70	29.90

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical  
Dept. Mgr.

KRIS LARK

1/15/2018

# SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 303 SS ROUND BAR  
(NOTE: AISI 304/316 NOT ACCEPTABLE)

△B

SPECIFICATION: ASTM A582

PART NUMBER: M303R D.DDD  
DIA.

WHERE "D.DDD" = DIAMETER IN INCHES

EG. 0.75" ROUND BAR = M303R0.750

**RELEASED**  
2010-02-02  
MD

B	REFORMAT DWG, ADD SPECS (LN D8-1); REF PAR 08-020A	CP	10.01.05
A	NEW ISSUE	DS	01.12.20
REV.	DESCRIPTION	BY	DATE
DESIGN	 <b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	REV. B	
DRAWN		DRAWING NO. M303R	
CHECKED		SHEET 1 OF 1	
MFG. APPR.		TITLE	
APPROVED		303 ROUND BAR	
DE APPR.		SCALE NTS	
DATE	10.01.05	COPYRIGHT © 2001 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS LOANED TO YOU FOR YOUR USE ONLY. IT IS NOT TO BE USED FOR ANY PURPOSE OR REPRODUCED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD.</small>	

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M303R0.500  
DATE: 18/06/21

PO / BATCH NO.: P0040134 15082804

MATERIAL CERT REC'D: Yes  
QUANTITY RECEIVED: 72L  
QUANTITY INSPECTED: 72L  
QUANTITY REJECTED: 0

THICKNESS ORDERED: 5.00"  
THICKNESS RECEIVED: 5.00"  
SHEET SIZE ORDERED: —  
SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	Y (N)	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	Y (N)	
CORRECT MATERIAL PER M-DRAWING	Y (N)	ASTM A582
CORRECT THICKNESS	Y (N)	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	Y (N)	47.506
CORRECT MATERIAL IDENTIFICATION	Y (N)	
CORRECT M# ON THE MATERIAL	Y (N)	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK.					
RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRB	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AT</u> <small>DAS</small>	SIGNED OFF BY: _____
DATE: <u>18/06/21</u> <small>5:45</small>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

5761

RSS-34303

51361

17303



# INSPECTION CERTIFICATE

WALSH LINEN CORP.

YANCHI PLANT  
NO. 1-10, SHIHO LIAO, CHEN SHEN LI,  
YANCHI DIST TAIWAN CITY 7740, TAIWAN, R.O.C.  
TEL: 093-4-020-011 FAX: 093-4-020-034

CUSTOMER: TA CHEN INTERNATIONAL, INC.

ORDER NO.: 106090007/268468

COMMODITY: Stainless Steel Cold Draw Round Bar (R)

SPECIFICATION: 303

CERTIFICATE NO: A1711200202

DOC No.1

LC NO: NUR

SUPPLY CONDITION: CD

DATE OF ISSUE: 2017/11/20

Heat No		Thick (Dia)	Pcs	Wt (LBS)	Chemical Composition(wt%)												Mechanical Property						BUNDLE NO
		(inch)			C x100	Si x100	Mn x100	P x1000	S x1000	Ni x100	Cr x100	Mo x100	Cu x100	N x10000			TS N/mm2	YS N/mm2	EL %	RA %	HRB	HRC	
Spec	Mis Max				15	100	200	200	150	800	1700												
51049		3/4"	69	1254	5.6	27	184	27	328.4	927	1810	11	55	221			710	535	33	46	97		WL17165008
5K397		3/4"	68	1239	5.9	24	193	28	229.4	803	1765	17	74	353			733	603	33	40	95		WL17165009

Total: 2493

TOLERANCE: A404

LENGTH TOLERANCE: 0-50

Acc. to ASTM A404-12 Cond.A.

Acc. to ASTM A404 type 1/00-0-7143 chemistry only.

This inspection certificate is issued according to EN 10204 2.2

## Remark:

Melted manufactured: Taiwan, Improved machining.

Solution annealed treatment: Acc. to ASTM A404.

SUPPLY CONDITION:  
A: Annealed  
B: Shot Blasted  
C: As Cast  
D: Peened/Thin Pass  
H: Precipitation Hardening  
M: Relief Rolled  
N: Straightened  
K: Cut Edge  
L: Polished  
R: Cold Rolled  
P: Pickled  
S: Shaved  
V: V-Burn  
W: Cut  
X: Temper  
CD: Cold Draw  
CG: Centerless Ground  
PL: Turned or Peened

We have the following certifications

1. ISO 9001:2015 Quality Management System
2. ISO/IEC 17025:2005 Laboratory Management System
3. FPD & AD2000-Medical WD
4. DNV - LR - ABS Classification Society certification
5. ISO 14001:2004 Environment Management System
6. OHSAS 18001:2007 & TOSHMS Certificate

TEST METHOD:

CHEMICAL-ASTM E1006, E415, E1006, E1019

1. We hereby certify that material described herein has been manufactured and tested with satisfactory results in accordance with requirement of the above material specification.
2. We certify that the material is free from mercury and radiation contamination. Qualification No. of Taiwan Atomic Energy Committee: 136
3. The Above Testing Results Relate Only To The Items Tested.
4. No welding repaired

**S. L. Kuan.**

Quality Assurance Responsible Personnel



# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M303K0.750  
DATE: 19/06/21

PO / BATCH NO.: P0010159/508285

MATERIAL CERT REC'D: Yes  
QUANTITY RECEIVED: 72H  
QUANTITY INSPECTED: 72H  
QUANTITY REJECTED: 0

THICKNESS ORDERED: .750"  
THICKNESS RECEIVED: .750"  
SHEET SIZE ORDERED: —  
SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/>	
CORRECT FINISH	<input checked="" type="checkbox"/> N	
CORROSION	Y <input checked="" type="checkbox"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> N	<u>ASTM A582</u>
CORRECT THICKNESS	<input checked="" type="checkbox"/> N	
PHOTO REQUIRED	Y <input checked="" type="checkbox"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> N	<u>47:55049</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING					
	HRB	HRB	DUR A	DUR D	WEBSTER

*Testers located in the Quality Office*

<b>QC 18 INSPECTION</b>		<b>ENGINEERING SIGNOFF (if required)</b>	
INSPECTED BY: <u>MT</u>	DAS 9-85	SIGNED OFF BY: _____	DATE: _____
DATE: <u>19/06/21</u>			

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

# SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 303 SS ROUND BAR  
(NOTE: AIST 304/316 NOT ACCEPTABLE)



SPECIFICATION: ASTM A592

PART NUMBER: M303R[D.DDD]  
DIA.

WHERE "D.DDD" = DIAMETER IN INCHES

EG. 0.75" ROUND BAR = M303R0.750

RELEASED  
2010-02-02  
MD

B	REFORMAT DWG, ADD SPECS (ZN D8-1) REF PAR 06-020A	CP	10.01.05
A	NEW ISSUE	DS	01.12.20
REV.	DESCRIPTION	BY	DATE
DESIGN		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN		DRAWING NO.	REV. B
CHECKED		M303R	SHEET 1 OF 1
MFG. APPR.		TITLE	SCALE
APPROVED		303 ROUND BAR	NTS
DE APPR.		COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS THE PROPERTY OF DART AEROSPACE LTD. IT IS TO BE USED FOR ANY PURPOSE OR COMPILED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DATE	10.01.05		